Amendments to the Claims

1. (currently amended): A method for blind transport format detection, the method comprising the steps of:

receiving an over-the-air signal comprising a plurality of transport channels multiplexed onto the over-the-air signal, wherein each of the plurality of transport channels comprises one of a plurality of possible transport formats;

determining a plurality of transport format combinations;

for each of the plurality of transport format combinations,

determining a ~~plurality of~~ Cyclic Redundancy Check (CRC) metrics for each ~~of the transport channels and a first transport format~~ channel component of the transport format combination;

combining the CRC metric of each channel component to form a transport format combination metric; and

determining which one of the plurality of transport combinations was utilized ~~a transport format combination~~ based on the transport format combination metrics.

2. (currently amended): The method of claim 1 wherein ~~the step of receiving the over-the-air signal comprising the plurality of transport channels multiplexed onto the over-the-air signal, wherein each of the plurality of transport channels comprises the plurality of transport formats comprises the step of receiving the over-the-air signal comprising the plurality of transport channels multiplexed onto the over-the-air signal, wherein each of the plurality of transport channels comprises the plurality of transport formats, wherein~~ the plurality of possible transport formats has a particular bit rate.

3. (currently amended): The method of claim ~~1~~ 5 ~~wherein the step of determining the transport format combination metric based on the plurality of CRC metrics~~ further comprising determining the largest transport format combination metric according to ~~comprises the step of determining~~ $\hat{k} = \arg\max_{k\in\{1,2,\cdots,K\}} \left\{ \sum_{i=1}^{I} p_i CRC_i^k \right\}$, wherein $p_i \in \{24,16,12,8,0\}$ is a number of CRC bits for an ith transport channel and CRC_i^k equals to 1 if a TTI frame under hypothesis TF_i^k for an ith transport channel passes a CRC check; and CRC_i^k equals to 0 if the TTI frame under hypothesis TF_i^k fails the CRC check or a CRC result is not available; and wherein K is a total number of format combinations possible.

4. (currently amended): The method of claim ~~1~~ 5 ~~wherein the step of determining the transport format combination metric based on the plurality of CRC metrics~~ further comprising determining the largest transport format combination metric according to ~~comprises the step of~~

~~etermining~~ $\hat{k} = \arg\max_{k\in\{1,2,\cdots,K\}} \left\{ \sum_{i=1}^{I} \left(\left(p_i + \ln \frac{1-e_i^k}{e_i^k} \right) CRC_i^k + \ln e_i^k \right) \right\}$,wherein

$p_i \in \{24,16,12,8,0\}$ is a number of CRC bits for an ith transport channel and CRC_i^k equals to 1 if a TTI frame under hypothesis TF_i^k for an *i*th transport channel passes a CRC check; and CRC_i^k equals to 0 if the TTI frame under hypothesis TF_i^k fails the CRC check or a CRC result is not available; and wherein K is a total number of format combinations possible.

5. (currently amended): The method of claim 1 wherein the step of determining which one of the plurality of transport combinations was utilized comprises determining which one of the plurality of transport combinations was utilized based on a largest transport format combination metric ~~the transport format based on the transport format combination metric comprises the step of determining the transport format, wherein the transport format utilized corresponds to the transport format having a largest transport format combination metric~~.

6. – 9. (cancelled)

10. (currently amended): An apparatus comprising:

a de-multiplexer having a data stream as an input, wherein the data stream comprises a plurality of transport channels, each having one of a plurality of possible transport channel formats, the de-multiplexer outputting a plurality of channels based on a particular transport format combination;

a plurality of Cyclic Redundancy Checking (CRC) circuitry, each having one of the plurality of channels as an input and outputting a CRC metric for the channel; and

a logic unit having ~~a plurality of~~ the CRC metrics ~~values~~ from the plurality of channels as an input and outputting a transport format combination metric based on the ~~plurality of~~ CRC metrics ~~values~~.

11. (original): The apparatus of claim 10 further comprising storage outputting data based on a transport format combination corresponding to a largest transport format combination metric.

12. (currently amended): The apparatus of claim 10 wherein the transport format combination metric is based on $\hat{k} = \arg\max_{k\in\{1,2,\cdots,K\}} \left\{ \sum_{i=1}^{I} p_i CRC_i^k \right\}$, wherein $p_i \in \{24,16,12,8,0\}$ is a number of CRC bits for an ith transport channel and CRC_i^k equals to 1 if a TTI frame under hypothesis TF_i^k for an *i*th transport channel passes a CRC check; and CRC_i^k equals to 0 if the TTI frame under hypothesis TF_i^k fails the CRC check or a CRC result is not available; and wherein K is a total number of format combinations possible.

13. (currently amended): The apparatus of claim 10 wherein the transport format combination metric is based on $\hat{k} = \arg\max_{k\in\{1,2,\cdots,K\}} \left\{ \sum_{i=1}^{I} \left(\left(p_i + \ln \frac{1-e_i^k}{e_i^k} \right) CRC_i^k + \ln e_i^k \right) \right\}$, wherein $p_i \in \{24,16,12,8,0\}$ is a number of CRC bits for an ith transport channel and CRC_i^k equals to 1 if a TTI frame under hypothesis TF_i^k for an *i*th transport channel passes a CRC check; and CRC_i^k equals to 0 if the TTI frame under hypothesis TF_i^k fails the CRC check or a CRC result is not available; and wherein K is a total number of format combinations possible.